Rationale for the Proposed Revisions

To Department of Health

Administrative Rules,

Title 11, Chapter 54

Water Quality Standards

Department of Health

Environmental Health Services Division

Clean Water Branch

Honolulu, Hawaii

4/9/13

Part I: Introduction

The proposed revisions to the Department of Health Administrative Rules, Title 11, Chapter 54 (HAR 11-54) – Water Quality Standards (here after referred to as 11-54) is presented in three independent units. The first component is a compilation and incorporation of grammatical and formatting recommendations provided by the Legislative Reference Bureau. The second component describes content or technical changes to the rule and includes the addition of EPA-required antidegradation language to comply with section 316 of the Federal Clean Water Act. The second component also proposes to allow the state to specify the use of a new EPA-developed alternative statistical test method (the Test of Significant Toxicity, TST) for determining toxicity effects of effluents from NPDES permittees. The final component updates the various references cited in 11-54.

Background:

Hawaii's administrative rule for water quality standards (WQS) dates back to January 1968, when Chapter 37-A, Public Health Regulations first became effective. These regulations were authorized under the federal Water Quality Act of 1965. The first amendment to these regulations became effective in May 1974 following the amendments to the Water Quality Act which gave rise to the 1972 Federal Water Pollution Control Act, commonly known as the Clean Water Act. Much of the existing content of Hawaii's WQS rule is based on the 1968 and the 1974 WQS rules. Subsequent amendments to Hawaii's WQS were adopted in 1979 to satisfy the CWA Section 208 Basin Plan requirements. Later amendments incorporated the National Pollutant Discharge Elimination System (NPDES) permit program, the CWA 401 Water Quality Certifications, which in some cases accompany the Department of the Army's CWA 404 permit for constructions in waters of the U.S., and site specific amendments for the Kona (west) coast of the island of Hawaii. Some phrases and terms from the first Federal Water Pollution Control Act of 1948 have been retained in the existing Clean Water Act and existing WQS rule for Hawaii; for example the current designated uses have remained basically unchanged since 1948. The most recent amendment was adopted on October 11, 2012 and incorporated provisions and restrictions for the application of pesticides to State waters.

Part II: Format Revisions

By direction of the Legislative Reference Bureau (LRB) and pursuant to the procedures established in Hawaii Administrative Rules Drafting Manual (LRB: Second Edition 1994), parts of Chapter 54 have been reformatted. These reformatting changes do not affect the content of the document. Content, or technical changes, are discussed thoroughly in Part III, Content or Technical Changes, of this rationale document.

Format changes include:

- Corrections to the Table of Contents to accurately reflect the titles of the various subparts
- Extending the underlines of section titles to include the period

- Removing unnecessary commas and semicolons or inserting them where appropriate
- Removing unnecessary line breaks so that sentences remain within their respective paragraphs
- Spelling out numeric values where appropriate
- Replaced "percent" with "per cent"
- Separating paragraph/subparagraph entries into individual, numbered lists, where appropriate
- Separated subsection 11-54-5.2(b) into numbered paragraph (11-54-5.2(b)(1)
- Removing unnecessary capitalizations
- Indenting or removing unnecessary indentations where appropriate to conform to established formatting guidelines
- Removing letters/numbers preceding definitions
- Correcting spelling and removing unnecessary hyphenations
- Adding spaces and removing unnecessary spaces where appropriate
- Correcting the use of "paragraph," "subparagraph," "section" and "subsection" to conform to established formatting guidelines
- Correcting inconsistencies in numbered lists
- Removing bracketed text that should have been removed in previous amendments

Specific grammatical changes made to numeric standards for toxic pollutants (11-54-4(b)(3):

- "Acenapthene" changed to "Acenaphthene"
- Fish Consumption value for Acenaphthene changed from "Ns" to "ns"
- "Chloroethers- ethy (bis-2)" changed to "Chloroethers-ethyl (bis-2)
- "Chloroethers- isoprophyl" changed to "Chloroethers- isopropyl"
- "ns" added to Acute Freshwater value for Demeton
- "Dichloro- ehenol" changed to "Dichloro- phenol"
- "Dinitro o-cresol (2,4)" changed to "Dinitro o-cresol (4,6)"
- "Pyrrolidine-N" not capitalized and indented to "Nitroso pyrrolidine-N
- "Vinylchloride" was changed to "Vinyl chloride"

Definitions deleted:

- "Department" and "Director" are currently defined in 11-54-1. The redundant definitions in 11-54-9.1 are proposed to be deleted.
- "HRS" is unnecessary and is proposed to be deleted from 11-54-9.1. Pursuant to the procedures established in Hawaii Administrative Rules Drafting Manual (LRB: Second Edition 1994), "citations of the Hawaii Revised Statutes shall be "HRS" followed by the appropriate section number,"

Part III: Content or Technical Changes

Antidegradation

Section 11-54-1.1 General policy of water quality antidegradation.

Original: None

Proposed: (d) In those areas where potential water quality impairment associated with a thermal discharge is involved, the antidegradation policy and implementing method shall be consistent with section 316 of the Clean Water Act.

Rationale:
Antidegradation Policy
Antidegradation implementation is an integral component of a comprehensive approach to protecting and enhancing water quality. All state water quality standards must be approved by EPA prior those standards becoming federally enforceable. 40 CFR 131.6 requires that certain minimum elements be included in the state's water quality standards when submitted to EPA for review. One such requirement, as stated in 40 CFR 131.6(d), includes an antidegradation policy.

The Federal antidegradation policy is stated in 40 CFR part 131 (section 131.12). This policy addresses the language and intent of the Federal requirement and was originally based on the spirit, intent and goals of the Clean Water Act (CWA), specifically the clause "...restore and maintain the chemical, physical and biological integrity of the Nation's waters." Antidegradation was not a part of the original CWA, but was explicitly incorporated into the CWA through a 1987 amendment codified in section 303(d)(4)(B), which requires the satisfaction of antidegradation requirements before certain changes may be made to NPDES permits. States are required to adopt into law antidegradation policies consistent with Federal requirements. These policies are implemented as part of the State's water quality standard.

The Federal antidegradation policy includes provisions for:

1. Assuring a level protection necessary to protect and maintain existing uses.
2. Protecting existing water quality that exceeds current Clean Water Act goals. Waters that exceed the levels necessary to support the propagation of fish, shellfish, and wildlife and recreation in and on the water must be protected and maintained, unless the State finds, after full satisfaction of the State's intergovernmental coordination and public participation provisions, that allowing lower water quality is necessary to accommodate important economic or social development in the area in which the waters are located. In allowing such degradation or lowering of the water quality in that area, the State must assure that water quality will be adequate to fully protect existing uses.
3. Protecting and maintaining existing high quality waters of exceptional significance.
4. Implementing an antidegradation policy consistent with section 316 of the Clean Water Act in cases where potential water quality impairment is associated with a thermal discharge.

Antidegradation language first appears in the 1984 revision of Hawaii's water quality standards (HAR 11-54-01.1, General policy of water quality), which states:

"Waters whose quality are higher than established water quality standards shall not be lowered in quality unless it has been affirmatively demonstrated to the director that the change is justifiable as a result of necessary economic or social development and will not interfere with or become injurious to any assigned uses made of, or presently in, those waters."

The term "antidegradation" first appears in the 1988 revision to 11-54, where the title of section 11-54-01.1 was amended to "General policy of water quality antidegradation" and the word "necessary" is replaced with "important" to be consistent with the antidegradation policy stated in section 131.12 of the November 8, 1983 edition of the Federal Register. The antidegradation component of 11-54 was again amended in 2004 after EPA requested that the Department update the rule to be explicitly consistent with 40 CFR 132.12. The 2004 amendment incorporated language identical to 40 CFR 132.12 into 11-54-1.1 with the following exceptions:

- Paragraph (a) - the word "instream" has been removed from the proposed amendment because the antidegradation requirement applies to all existing uses of surface waters in and bordering the State, whether these waters are fresh, brackish or marine.
- Paragraph (b) - the word "State" has been changed to "director," meaning the Director of the Department of Health.

Section 11-54-1.1 has been unchanged since the 2004 amendment.

On May 10, 2011, EPA Region 9 issued its draft Antidegradation Policy Implementation Review for all states in the region. That review noted that Hawaii's water quality standards lacked the requirement for thermal discharges, and therefore was inconsistent with Section 316 of the Clean Water Act. EPA recommended that Hawaii update its water quality standards to include the requirement for thermal discharges to be consistent with Section 316 of the CWA. The existing antidegradation language for Hawaii, found in 11-54-1.1, General policy of water quality antidegradation, is consistent with, and is based substantially on 40 CFR 131.12 based on the 2004 amendment, with the exception of paragraph (4) of 40 CFR 131.12. The proposed amendment will add the text of paragraph (4) in 40 CFR 131.12 into 11-54-1.1 to comply with Section 316 of the Clean Water Act.

Test of Significant Toxicity
Section 11-54-4(b)(1)

Original: None

Proposed: <u>"In-Stream Waste Concentration" (IWC) means the concentration of a toxicant in the receiving water, or for a discharge, the concentration of the effluent after minimum dilution authorized by the department. A discharge of one hundred</u>

divided by the minimum dilution is the IWC when the dilution is authorized by the department. A discharge of one hundred per cent effluent is the IWC when dilution is not authorized by the department.

and

"Test of Significant Toxicity" (TST) means the alternative statistical method for analyzing and interpreting valid whole effluent toxicity test data as described in the EPA publications, "National Pollutant Discharge Elimination System Test of Significant Toxicity Implementation Document", EPA 833-R-10-003 (June 2010), and "National Pollutant Discharge Elimination System Test of Significant Toxicity Technical Document", EPA 833-R-10-004 (June 2010).

Section 11-54-4(b)(4)

Original:

(A) Continuous discharges through submerged outfalls. The No Observed Effect Concentration (NOEC), expressed as percent effluent, of continuous discharges through submerged outfalls shall not be less than 100 divided by the minimum dilution. In addition, such discharges shall not contain:

(i) Pollutants in twenty–four hour average concentrations greater than the values obtained by multiplying the minimum dilution by the standards in paragraph (3) for the prevention of chronic toxicity.

(ii) Non-carcinogenic pollutants in thirty day average concentrations greater than the values obtained by multiplying the minimum dilution by the standards in paragraph (3) for fish consumption.

(iii) Carcinogenic pollutants in twelve month average concentrations greater than the values obtained by multiplying the average dilution by the standards in paragraph (3) for fish consumption.

(B) Discharges without submerged outfalls. The survival of test organisms in an undiluted acute toxicity test of any discharge shall not be less than 80 per cent. In addition, no such discharge shall contain pollutants in concentrations greater than the standards in paragraph (3) for the prevention of acute toxicity to aquatic life. The director may make a limited allowance for dilution for a discharge in this category if it meets the following criteria: the discharge velocity is greater than 3 meters per second; the discharge enters the receiving water horizontally, and; the receiving water depth at the discharge point is greater than zero.

Proposed:

(A) Continuous discharges through submerged outfalls.

(i) The No Observed Effect Concentration (NOEC), expressed as percent effluent, of continuous discharges through submerged outfalls shall not be less than 100 divided by the minimum dilution; or,

(ii) The Test of Significant Toxicity (TST), as described in EPA 833-R-10-003 (June 2010) and EPA 833-R-10-004 (June 2010), shall be used to demonstrate no unacceptable level of chronic toxicity at the In-stream Waste Concentration (IWC). The chronic toxicity criterion is expressed using a regulatory management decision (b value) of 0.75 for chronic toxicity where, a 0.25 effect level (or more) at the In-stream Waste Concentration (IWC) demonstrates an unacceptable level of chronic toxicity.

(B) Continuous discharges through submerged outfalls shall not contain:

(i) Pollutants in twenty four hour average concentrations greater than the values obtained by multiplying the minimum dilution by the standards in paragraph (3) for the prevention of chronic toxicity.

(ii) Non-carcinogenic pollutants in thirty day average concentrations greater than the values obtained by multiplying the minimum dilution by the standards in paragraph (3) for fish consumption.

(iii) Carcinogenic pollutants in twelve month average concentrations greater than the values obtained by multiplying the average dilution by the standards in paragraph (3) for fish consumption.

C Discharges without submerged outfalls.

(i) The survival of test organisms in an undiluted acute toxicity test of any discharge shall not be less than eighty per cent; or,

(ii) Compliance with the acute toxicity NPDES effluent limit is demonstrated using the Test of Significant Toxicity (TST) as described in EPA 833-R-10-003 (June 2010) and EPA 833-R-10-004 (June 2010). The acute toxicity criterion is expressed using a regulatory management decision (*b* value) of 0.80 for the acute toxicity test methods listed in 11-54-10, where, in an undiluted acute toxicity test, a 0.20 effect level (or more) at the IWC demonstrates an unacceptable level of acute toxicity; or,

(iii) The Test of Significant Toxicity (TST), as described in EPA 833-R-10-003 (June 2010) and EPA 833-R-10-004 (June 2010), shall be used to demonstrate no unacceptable level of chronic toxicity at the IWC. The chronic toxicity criterion is expressed using a regulatory management decision (b value) or 0.75 for chronic toxicity where, a 0.25 effect level (or more) at the IWC demonstrates an

unacceptable of chronic toxicity. Toxicity is considered significant if the mean response in the IWC is greater than 0.75 multiplied by the mean response of the control.

No discharge shall contain pollutants in concentrations greater than the standards in paragraph (3) for the prevention of acute toxicity to aquatic life. The director may make a limited allowance for dilution for a discharge in this category if it meets the following criteria: the discharge velocity is greater than 3 meters per second; the discharge enters the receiving water horizontally, and; the receiving water depth at the discharge point is greater than zero.

Rationale:
Note: amendments to this section include both formatting and content changes.

Section 402 of the Clean Water Act establishes the National Pollutant Discharge Elimination System (NPDES) program which is designed to control toxic discharges, implement water quality standards and to facilitate the Clean Water Act objective of "*restoring the chemical, physical and biological integrity of the Nation's waters.*" Under this program, point sources that discharge pollutants must do so under the terms and conditions of an NPDES permit, which in Hawaii, is issued by the Clean Water Branch. One approach to controlling toxic pollutants in the effluent is by monitoring whole effluent toxicity (WET) that is, measuring the combined effect of all pollutants in an effluent rather than measuring individual chemical compounds. WET testing is an aquatic toxicity testing method which directly measures the aggregate toxic effect of all pollutants in an aqueous sample (usually comprised of effluent and receiving water) and is used by the NPDES permitting authority to determine whether a facility's permit will meet WET requirements. WET test measurements are laboratory based experiments that measure the biological effect (e.g. growth, survival, and reproduction) of effluents and/or receiving waters on living aquatic organisms. In these tests, organisms of a particular species (defined by the NPDES permits) are held in test chambers and are exposed to varying concentrations of aqueous samples (e.g. reference toxicant, effluent or receiving water) and observations made at predetermined exposure periods. At the end of the test, the responses of the test organisms are used to evaluate the effects of the toxicant or effluent. WET testing methods, including calculations and interpretive guidelines, are specified by EPA in various guidance documents.

EPA recommends an integrated strategy for the protection of aquatic life, which includes a chemical specific approach, the WET control approach and the biological criteria/bioassement/bioassay approach. The primary advantage of using WET testing approach over individual, chemical specific testing is that WET testing integrates the effects of all chemical(s) in the aqueous sample. Individual chemical specific testing analyzes a sample for a single chemical or group of chemicals and does not take into consideration the combined effects of the chemical(s) and other constituents present in the effluent or receiving water. Since WET testing is based on the combined effects of all pollutants in an effluent, EPA believes that this method, combined with the chemical specific and biological approach provides a comprehensive snapshot of the quality of the effluent being discharged.

In the test of significant toxicity (TST), the WET testing procedure does not change, i.e. the test will still measure the test organism's ability to survive, grow and reproduce in the aqueous sample and will still measure the aggregate effects of all pollutants in the effluent. The TST is a new statistical method developed by EPA for analyzing the test organism's response when exposed to the test sample. This method utilizes peer-reviewed hypothesis testing techniques which examines whether an effluent, at the critical concentration differ by an unacceptable amount, i.e. an amount that would have a measured detrimental effect on the ability of aquatic organisms to thrive and survive. The TST approach specifically incorporates statistical testing power, which provides the ability to correctly classify the effluent as acceptable (i.e. non-toxic) under the NPDES WET program. Once the WET test has been conducted (using existing test protocols), the TST approach can be used to analyze valid WET test results to assess whether the effluent discharge is toxic.

Existing methods to determine whether an effluent is declared toxic relative to a permitted WET limit is based on a hypothesis testing approach which seeks to answer the question "*Is the mean response of the organism the same or worse in the control than in the in-stream waste concentration* (IWC[1])?" This hypothesis testing approach yields four possible outcomes:

1. The IWC is truly toxic and is declared toxic
2. The IWC is truly non-toxic and is declared non-toxic
3. The IWC is truly toxic, but is declared non-toxic
4. The IWC is truly non-toxic, but is declared toxic.

The latter two outcomes represent decision errors that can occur with any hypothesis testing approach. In the NPDES WET program, these errors may occur when test control replication is poor (i.e. the within-test variability is high) so even large differences in organism response between the test sample and control are incorrectly determined to be non-toxic. This results in a determination that the IWC is truly toxic, but is declared to be non-toxic, (outcome 3). Errors may also occur when the test control replication is very good (i.e. the within-test variability is low), and very small difference between the test sample and control could be determined to be toxic, when in fact it is non-toxic (outcome 4).

[1]The In-stream Waste Concentration (IWC) is defined as the concentration of a toxicant in the receiving water, or for a discharge, the concentration of the effluent after minimum dilution authorized by the Department. A discharge of 100 divided by the minimum dilution is the IWC when dilution is authorized by the Department. A discharge of 100% effluent is the IWC when dilution is not authorized by the Department.

The TST approach re-phrases the null hypothesis to answer the question "*Is the mean response in the effluent less than a defined biological amount?*" The derivation of the biological amount for the different organisms used in the test is discussed in the EPA guidance documents *National Pollutant Discharge Elimination System Test of Significant*

Toxicity Implementation Document, EPA 833-R-10-003, June 2010 and *National Pollutant Discharge Elimination System Test of Significant Toxicity Technical Document,* EPA 833-R-10-004, June 2010. These documents also specify the calculation and data analysis methods to be used as well as provide interpretive guidelines.

The TST also requires that certain decisions and assumptions be made prior to testing. These are referred to as "Regulatory Management Decisions" (RMDs) and are discussed in the documents referenced above. Prior to the issuance of permits requiring the TST approach to WET testing, Hawaii-specific RMDs are based on these documents as well as with consultation with EPA. The RMD or b value expressed in the null hypothesis for chronic and acute toxicity has been determined to be 0.75 and 0.80 respectively. As used in the NPDES WET program, rejection of the null hypothesis would indicate that the effluent is considered non-toxic and accepting the null hypothesis indicates that the effluent is toxic.

The TST method is believed to provide a simpler method for analyzing WET testing results while reducing false negative (Type II or beta) rate that the existing method is prone to. By establishing a defined beta error rate, the power of the test may be determined (i.e. the probability of correctly detecting an actual toxic effect using the traditional hypothesis testing approach (i.e. declaring an effluent toxic when, in fact, it is toxic). By establishing an appropriate beta error rate and test power in the NPDES WET program, there will be an incentive for the permittee to generate more precise data using the TST as opposed to the traditional method. The TST is designed to provide a simple yes or no answer using rigorous peer-reviewed statistical methods. Unlike the existing method, this statistical approach ignores biologically trivial effects on an effluent and does not declare a sample to be toxic when such effects are encountered. Likewise, unacceptable effluent toxicity should be identified most of the time. This may or may not be true using the existing method.

Note that the proposed TST method of interpreting WET testing results does not replace the existing method of interpretation (known as the "No Observed Effect Concentration" or NOEC); it provides the department with an additional tool to assess water quality.

Updated definition of "water quality certification"
Section 11-54-9.1

Original: "Department" means the state department of health.
Original: "Director" means the director of the department or an authorized agent.

Proposed: Delete definitions for "Department" and "Director"

Rationale:
"Department" and "Director" are defined in 11-54-1.

Original: "Water quality certification" or "certification" means a statement which asserts that a proposed discharge resulting from an activity will not violate applicable water quality standards. A water quality certification is required by section 401 of the Act from any applicant for a federal license or permit to conduct any activity, including the construction or operation of facilities which may result in any discharge into navigable waters.

Proposed: "Water quality certification" or "certification" means a statement which asserts that a proposed discharge resulting from an activity will not violate applicable water quality standards and the applicable provisions of sections 301, 302, 303, 306 and 307 of the Act. A water quality certification is required by [Section]section 401 of the Act from any applicant for a federal license or permit to conduct any activity, including the construction or operation of facilities which may result in any discharge into navigable waters.

Rational:
The proposed revision is to ensure the State's section 401 water quality certification program is consistent with paragraph 401(a)(1) of the Act which states that: "(a)(1) Any applicant for a Federal license or permit to conduct any activity including, but not limited to, the construction or operation of facilities, which may result in any discharge into the navigable waters, shall provide the licensing or permitting agency a certification from the State in which the discharge originates or will originate, or, if appropriate, from the interstate water pollution control agency having jurisdiction over the navigable waters at the point where the discharge originates or will originate, that any such discharge will comply with the applicable provisions of sections 301, 302, 303, 306, and 307 of this Act..."

Part IV: Updates to references cited
Section 11-54-7(e)(3)
Original: Specific criteria to be applied to all reef flats and reef communities: No action shall be undertaken which would substantially risk damage, impairment, or alteration of the biological characteristics of the areas named herein. When a determination of substantial risk is made by the director, the action shall be declared to be contrary to the public interest and no other permits shall be issued pursuant to chapter 342, HRS.

Proposed: Specific criteria to be applied to all reef flats and reef communities: No action shall be undertaken which would substantially risk damage, impairment, or alteration of the biological characteristics of the areas named herein. When a determination of substantial risk is made by the director, the action shall be declared to be contrary to the public interest and no other permits shall be issued pursuant to chapter 342D, HRS.

Rationale:

Hawaii Revised Statutes, Chapter 342 was repealed in 1989 and was replaced with Chapter 342D. This revision proposes to update this reference.

Section 11-54-9.1

Original: "33 CFR" means the Code of Federal Regulations, Title 33, Corps of Engineers, Department of the Army, Department of Defense, revised as of July 1, 1998, unless otherwise specified.

Proposed: "33 CFR" means the Code of Federal Regulations, Title 33, Corps of Engineers, Department of the Army, Department of Defense, revised as of July 1, [1998] 2011, unless otherwise specified.

Rationale:
This reference has been updated by EPA

Original: "40 CFR" means the Code of Federal Regulations, Title 40, Protection of the Environment, revised as of July 1, [1998] 2001, unless otherwise specified.

Proposed: "40 CFR" means the Code of Federal Regulations, Title 40, Protection of the Environment, revised as of July 1, [1998][2001] 2012, unless otherwise specified.

Rationale:
The 2004 revision to 11-54 failed to remove the Ramseyer notation used in the drafting process. As a result, the bracketed date "1998" was not deleted and "2001" remained underlined in the final 2004 version (both dates appear in 11-54). The final 2004 version of the rule should have shown the date to be "July 1, 2001". This reference (July 1, 2001) has since been updated by EPA and the current revision of 11-54 proposes to amend the date to "July 1, 2012".

Section 11-54-10
Original:

Parameter	Reference
Sample Collection (Phytoplankton and other Bioassays)	Standard Methods for the Examination of Water and Waste Water, twentieth edition, APHA

Sample Preservation and Holding Time, Bacteriological and Chemical Methodology	"Guidelines Establishing Test Procedures for Analysis of Pollutants," Federal Register, July 1, 1998 (40 CFR 136) and "Technical Amendments,"[Federal Register, July 1, 1998 (40 CFR 136).] 40 CFR 136, revised as of July 1, 2001.

Proposed:

Parameter	Reference
Sample Collection (Phytoplankton and other Bioassays)	Standard Methods for the Examination of Water and Waste Water, [twentieth] twenty first edition, APHA
Sample Preservation and Holding Time, Bacteriological and Chemical Methodology	["Guidelines Establishing Test Procedures for Analysis of Pollutants," Federal Register, July 1, 1998 (40 CFR 136) and "Technical Amendments,"[Federal Register, July 1, 1998 (40 CFR 136).] 40 CFR 136, revised as of July 1, 2001.] "Guidelines Establishing Test Procedures for the Analysis of Pollutants," Federal Register, July 1, 2011 (40 CFR 136)"

Rationale:
These references have been updated by EPA. This section was last revised in 2004. The 2004 revision to 11-54 failed to remove the Ramseyer notation used in the drafting process. As a result, the bracketed reference "Federal Register, July 1, 1998 (40 CFR 136)" was not deleted and "40 CFR 136, revised as of July 1, 2001" remained underlined. The final 2004 version of the rule should have shown the reference to be "40 CFR 136, revised as of July 1, 2001". The reference has since been updated by EPA and the "Technical Amendments" to 40 CFR 136 has since been incorporated into revised versions of the regulation. This revision proposes to amend the reference to reflect the most current version of the regulation, "Federal Register, July 1, 2011 (40 CFR 136)" and remove reference to the "Technical Amendments".

Original: Toxicity Test	EPA/600/4-91/002, Short-Term Methods For Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms, July 1994, or: EPA/600/4-90-027F, Methods for Measuring the Acute Toxicity of Effluents to Freshwater and Marine Organisms. Cincinnati, Ohio, EMSL, August 1995 or: EPA-600/4-91/003, Short-Term methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Marine and Estuarine Organisms. ORD, Cincinnati, Ohio, July 1994
Proposed: Toxicity Test	[EPA/600/4-91/002 Short-Term Methods For Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms, July 1994.] <u>EPA 821-R-02-031, Short-Term Methods For Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms,4th edition, October 2002,</u> or: [EPA/600/4-91/027F Methods for Measuring the Acute Toxicity of Effluents to Freshwater and Marine Organisms. Cincinnati, Ohio, EMSL, August 1995.]

EPA 821-R-02-012, Methods For Measuring the Acute Toxicity of Effluents and Receiving waters to Freshwater and Marine Organisms, 5th edition, October 2002.

or:

[EPA-600/4-91/003, Short-Term methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Marine and Estuarine Organisms. ORD, Cincinnati, Ohio, July 1994.]

EPA 821-R-02-014, Short-Term Methods For Estimating the Chronic Toxicity of Effluents and Receiving Waters to Marine and Estuarine Organisms, 3rd edition, October 2002.

or:

EPA 833-R-10-003, National Pollutant Discharge Elimination System Test of Significant Toxicity Implementation Document, June 2010.

or:

EPA 833-R-10-004, National Pollutant Discharge Elimination System Test of Significant Toxicity Technical Document, June 2010.

or:

EPA/600/R-12/022, Tropical Collector Urchin, *Tripneustes gratilla*, Fertilization Test Method, April 2012.

Rationale:
These references have been updated by EPA. New references have been added to address the newly proposed Test of Significant Toxicity in 11-54-4(b)(4).

Original:

Kona Coast Area Specific Standards	Rationale for the Development of Area-Specific Water Quality Criteria for the West Coast of The Island of Hawaii and Procedures for Their Use. Hawaii State Department of Health. March 1997. or: As otherwise previously specified or approved by the director.

Proposed:

Kona Coast Area Specific Standards	Rationale for the Development of Area-Specific Water Quality Criteria for the West Coast of The Island of Hawaii and Procedures for Their Use. Hawaii State Department of Health. March 1997. [or: As otherwise previously specified or approved by the director.]

<u>or as otherwise previously specified or approved by the director.</u>

Rationale:
This is a correction to a formatting error. The intent of the provision allowing the Director to specify or approve analysis to determine compliance with these rules applies to all parameters listed in section 10 and not just to the Kona Coast Area Specific Standards.